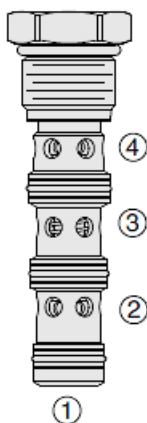




Overview



Description

The FD52-45 is a screw-in cartridge, spool type flow divider/combiner valve

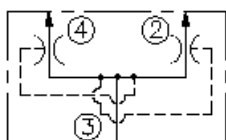
Operation

The cartridge valve pressure compensated proportional division of inlet flow or combining of two return flows regardless of system operating pressure conditions. The valve provides synchronizing flow in dividing and combining modes

Features

- Hardened parts for long life.
- Quiet, modulated response.
- Wide operating flow range.
- Synchronizing in dividing and combining modes.
- Floating cage â€” high installation torque.
- Industry-common cavity.

Symbol



Ratings

Pressure Ratings

Pressure rating	345 bar (5000 psi) 420 bar (6090 psi)	- Note: 10% duty cycle
Pressure drop	20.5 bar (300 psi)	- Note: At maximum inlet flow

Flow Ratings

Inlet flow rating	15 to 60 lpm (4.0 to 16.0 gpm) 23 to 90 lpm (6.0 to 24.0 gpm) 30 to 106 lpm (8.0 to 28.0 gpm)	- Note: Model code 44 - Note: Model code 66 - Note: Model code 88
Synchronizing flow	Approximately 10% of maximum inlet flow	
Flow accuracy	10 % 15 %	- Note: Of inlet flow for -44 and -66 models - Note: Of inlet flow for -88 models

Temperature Ratings

Operating fluid temperature	-40 to 100 °C (-40 to 212 °F) -26 to 204 °C (-15 to 400 °F) -54 to 107 °C (-65 to 225 °F)	- Note: With buna N seals - Note: With fluorocarbon seals - Note: With polyurethane seals
Storage temperature	-40 to 70 °C (-40 to 160 °F)	
Ambient temperature	-40 to 90 °C (-40 to 194 °F)	

Other Ratings

Corrosion protection	960 hr salt spray per ASTM b117 (model number - gfd52-45)
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Operating Parameters

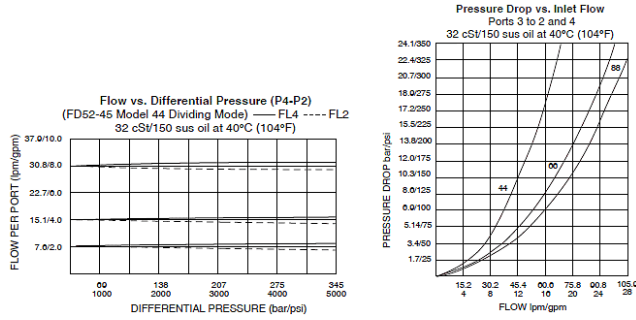
Fluids	Mineral based or synthetic hydraulic fluid with lubricating properties
Fluid viscosity range	7.4 to 420 cSt
Maximum operating contamination level	18/16/13 per ISO 4406

Properties

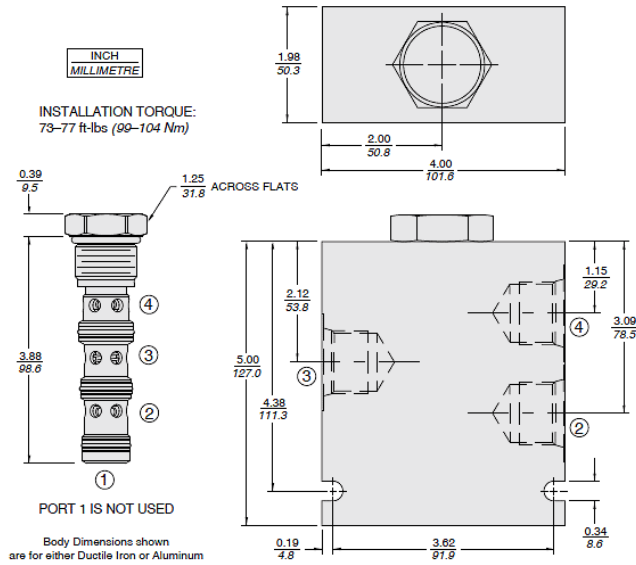
Unit weight	0.24 kg (0.53 lb)
Internal wetted surface area	238 cm ² (43.8 in ²)



Performance



Dimensions



Materials

Materials

Cartridge: Weight: 0.24 kg (0.53 lb); Steel with hardened work surfaces. Zinc-plated exposed surfaces; Buna N O-rings and polyester elastomer back-ups standard.

Ported Body: Ductile iron body required for operation over 207 bar (3000 psi). Aluminum bodies are available for lower pressure operation. FD-type bodies recommended but a standard 4-way body may also be used with Port 1 plugged.

Installation Specifications

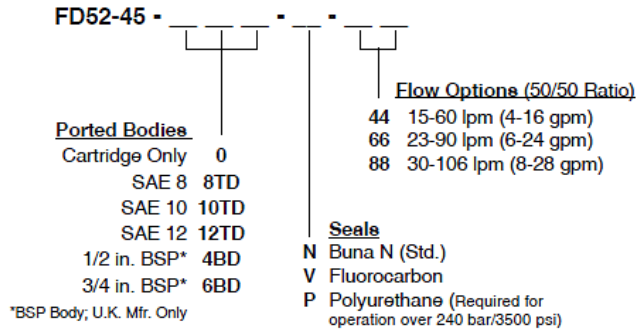
Cavity	VC12-4 HVC12-4 for applications with pressure excursions up to 420 bar (6090 psi)
Cartridge installation torque	99 to 104 N-m (73 to 77 ft-lb) 156 to 169 N-m (115 to 125 ft-lb) - Note: For applications with pressure excursions up to applications with pressure excursions up to 6090 psi [420 bar]
Orientation restriction	None

Accessories

Seal kit	SK12-4X-MMM (x=seal option) - Note: X=seal option
Housings	



Order Code



POSITION	CODE	DESCRIPTION
		FD52-45-H-J-N
H		Line Body
H	0	No Body
H	10T	Aluminum SAE 10
H	12T	Aluminum SAE 12
H	12TD	Ductile Iron SAE 12
J		Seal
J	N	Buna-N
J	V	Fluorocarbon
J	P	Polyurethane
N		Flow Dividing/Combining
N	22	Not listed in outline
N	33	Not listed in outline
N	44	50/50 Rated at 15.0-60.0 lpm (6.0-24.0 gpm)
N	55	Not listed in outline
N	66	50/50 Rated at 23.0-90.0 lpm (6.0-24.0 gpm)
N	88	50/50 Rated at 30.0-106.0 lpm (8.0-28.0 gpm)